

Yale Plans for EIC tracking R&D

- 3-coordinate GEM chamber
- Alternate TPC gain structure – 2 GEM+MMG
- Resistive MMG for above
- Stacked gating grid structure for near 100% live TPC readout

- 3-coordinate GEM: Nikolai has taken over analysis of test beam data. Very experienced and knowledgeable so it should be completed soon.
- 2 GEM + MMG: Significant studies on dE/dx resolution, Ion Back Flow and discharge rates – paper submitted to NIM: arxiv at <http://arxiv.org/abs/1603.08473>
- Ongoing studies of resistive coatings for MMG to minimize affects of discharges
- Ongoing studies of Howard Wieman's idea for stacked gating grids to allow near continuous readout of a TPC. (arXiv: <http://arxiv.org/abs/1603.05648>)

We expect to complete the last two studies with funds already allocated.

We have no further EIC tracking R&D plans.